

June 2023

Infrastructure New Zealand Submission on the Climate Change Commission's 2023 Draft Advice to Inform the Strategic Direction of the Government's Second Emissions Reduction Plan

1. Introduction

- 1.1 Infrastructure New Zealand (INZ) welcomes this opportunity to submit on the Climate Change Commission's 2023 Draft advice to inform the strategic direction of the Government's second emissions reduction plan.
- 1.2 INZ is New Zealand's membership organisation for the infrastructure sector. We promote best practice in national infrastructure development through research, advocacy and public and private sector collaboration. Our members come from diverse sectors across New Zealand and include infrastructure service providers, investors and operators.
- 1.3 While INZ has submitted as the peak infrastructure sector organisation, we have also encouraged our members to make their own submissions raising those issues specific to their areas of interest or expertise.

2. General Remarks

- 2.1 The Climate Change Commission's draft advice clearly highlights that the time to act on emissions reduction is now. Any delay will have outsized negative effects on our infrastructure and communities.
- 2.2 Building sustainable infrastructure will also only continue to get more expensive. On top of a large infrastructure deficit (\$210 billion) and the costs of rebuilding after Cyclone Gabrielle and the Auckland Floods (\$9-14 billion) the cost of building for emissions reduction and climate resilience will rise with delayed and uncertain decision making.



- 2.3 The infrastructure sector has a key role to play in reducing embodied and enabled emissions, building and planning for emissions reduction across Aotearoa New Zealand, and improving climate resilience. In emissions budgets two and three, there is a significant shift towards emissions reductions in transport and the energy/industry sectors which will require sustained effort from the sector to deliver.
- 2.4 Aotearoa’s consenting, funding and political systems must come together to support that effort.
- 2.5 In our submission, Infrastructure New Zealand highlights the importance of certainty for the sector and the opportunities to build on successful public and private sector partnerships to drive emissions reductions.
- 2.1 We respond to many of the key recommendations for the transport, infrastructure and energy sectors within our submission and emphasise the need to improve consenting frameworks for renewable energy generation, to prioritise transit oriented development through increased certainty and accelerated delivery timelines for major transport initiatives and to provide more detailed recommendations in the final advice around retrofits, funding and financing arrangements and labour force considerations through the transition to a low-emissions economy.
- 2.2 We strongly encourage the incumbent Government to meaningfully engage with the Commission’s final advice, to support its role as an independent advisory body and give greater certainty to the infrastructure sector as it gears up to deliver on emissions reductions, and build a more sustainable future for Aotearoa New Zealand.

3. Providing clarity and certainty for the sector will be crucial for emissions reduction

- 3.1 At a high level, we note that the draft advice comes ahead of the monitoring report, reviewing the actions taken in the first emissions reduction plan (ERP), as per the Climate Change Response Act (2002), which is due in 2024.
- 3.2 It would have been beneficial for the review to have taken place first, with some analysis of the impact of rolling back key ERP policies in the Prime Minister’s “policy bonfire” announcements earlier this year.



- 3.3 The draft advice notes that while the Government’s policy impact assessment of the first emissions reduction plan suggests the policies in the first emissions reduction plan could achieve the second and third emissions budgets, there are risks around some of the underlying assumptions and questions regarding the plausibility of its ‘high impact’ estimates. We would also add that these recent rollbacks of policies addressing key priorities in both emissions budget periods, including electric vehicle (EV) uptake, will contribute to undermining the impact of actions agreed to under the first ERP.
- 3.4 Transparency and evidence-based policy making are crucial to ensuring that infrastructure, and other sectors have clarity on the effects of actions taken under the first ERP, the basis for the Commission’s recommendations and its direction of travel to inform business decision-making around gross emissions reduction and offset considerations.
- 3.5 While outside of the scope of the draft advice, INZ recommends that the phasing of the review and provision of advice on the next ERP is reconsidered by Parliament.
- 3.6 There is also a role for increased influence of the Commission through Regulatory Impact Statement-like assessments of proposed climate policies or cancelling of actions contained in previous ERPs.
- 3.7 A stronger role for the Commission in this area would be valuable to improving transparency for the public on the sitting Government’s climate agenda. Clear and credibly signalled outcomes and climate targets should be met with transparent evidence of likely impact when climate policies are rolled back, or emissions increasing policies are proposed or implemented.
- 3.8 The Parliamentary Commissioner’s recent economic analysis of energy scenarios demonstrates the value of independent advice in the midst of a highly politicised debate around the New Zealand Battery Project and the future of addressing dry and climate related risks in Aotearoa’s energy future¹.
- 3.9 INZ supports a stronger role for the Commission in providing similar analysis as a counter to the ongoing politicisation and uncertainty surrounding the delivery of ERP actions and climate modelling for policy proposals.

¹ Upton, S. (2023). Fair comparisons needed for major electricity investments: [Fair comparisons needed for major electricity investments | Parliamentary Commissioner of Environment \(pce.parliament.nz\)](https://www.pce.parliament.nz/fair-comparisons-needed-for-major-electricity-investments)



- 3.10 INZ considers the Commission's focus on identifying outcomes that the Government of the day can work towards achieving is a positive step toward enabling the conditions for building on the bipartisan support of our net-zero goals and creating the conditions for greater mid-term certainty for those reducing emissions.
- 3.11 We do, however, acknowledge the New Zealand Green Building Council's view that this approach, as a significant departure from that taken in *Ināia tonu nei* - which gave more detailed policy advice to Government as opposed to focusing on outcomes, deserves a greater level of explanation².
- 3.12 INZ recommends that this is laid out in more detail in the final advice and suggests that an increased policy analysis role for the Commission, as outlined in 3.6 may serve as a productive and more detail oriented addition to the Commission's strategic advice products.
- 3.13 We strongly encourage the incumbent Government at the next stage of advice consideration to engage meaningfully with the Commission's advice and to support its role as an independent advisory body.
- 3.14 Building cross party consensus on the direction of travel is crucial to providing certainty to the infrastructure sector, so it is able to train, invest and advise with confidence. We encourage a committed effort across the House to recognise the independent nature of the advice presented and offer cross party support of key outcomes. Depoliticising our approach to infrastructure, and emissions reduction will be a particularly helpful step in the right direction and ensuring the sector is ready to deliver when called upon.
- 3.15 We also underscore the importance of clarity for the sector about whether further actions under the \$1.9B in Climate Emergency Relief Fund allocation will be delivered going forward.

4. Providing clarity on gross emissions reductions

- 4.1 The draft advice recommends changes to the Emissions Trading Scheme (ETS) and greater clarity on the split between gross emissions reductions and afforestation.

² New Zealand Green Business Council. (2023). Te Kaunihera Hanganga Tautaiāo | New Zealand Green Building Council (NZGBC) submission The Climate Change Commission's 2023 Draft advice to inform the strategic direction of the Government's second emissions reduction plan: [Attachment \(nzgbc.org.nz\)](https://www.nzgbc.org.nz/attachment/63969288-4680-488c-9988-830990803900)



- 4.2 At present, there is a level of uncertainty as the Zero Carbon Act provides for a net emissions reduction target, meaning that the proportion of sequestration via afforestation, versus gross emissions reduction, is not clear. This is likely to create ongoing policy uncertainty and impact decision-making in the public and private sectors.
- 4.3 Improved certainty on expected gross emissions reduction would be beneficial for the infrastructure sector as it gears up to reduce emissions and improve its practices.
- 4.4 INZ also supports the Commission's concern with the effects of a hyper-focus on afforestation and carbon sequestration. Afforestation brings with it risks for infrastructure assets in the context of increasingly common climate events like cyclones and flooding.
- 4.5 We saw in the aftermath of Cyclone Gabrielle the damage that forestry slash can cause critical infrastructure links for communities. Bridges across Hawke's Bay and Tairāwhiti were severely damaged and destroyed by forestry detritus, cutting local communities off from the rest of the country, and emergency services.
- 4.6 Overseas, recent forest fires in Canada, and those in Australia in previous years, have had significant negative effects both domestically and internationally. Smoke pollution in the United States and here in New Zealand after the respective forest fires carried health impacts and the frequency of which is likely to only worsen as the planet warms.
- 4.7 We cannot falsely separate decarbonisation and climate resilience, so it is encouraging to see the Commission consider the implications of a reliance on afforestation, including for our infrastructure. However, whilst the Government's hyper-focus on afforestation brings risk to infrastructure, we acknowledge that afforestation is appropriate in some places. Afforestation is a useful tool to manage erosion of land in high-risk areas and to increase biodiversity, productivity of marginal land and carbon sequestration. We submit that afforestation that addresses these issues needs to be managed, monitored and incentivised in such a way to avoid the damage we saw in the aftermath of Cyclone Gabrielle.
- 4.8 Infrastructure providers and investors require certainty of direction to invest. We also note Business New Zealand's point that parent companies operating in different countries tend to make significant investments. Countries that offer a favourable policy environment, promoting decarbonisation and providing regulatory certainty and long-term stability for businesses, are more likely to attract investment than New Zealand under current policy settings. This situation is detrimental to New Zealand's economy and its ability to meet its emissions targets.



- 4.9 In a competitive global economy increasingly focused on emissions reduction, attracting overseas capital and technical expertise will be critical. We encourage the Commission to weigh its advice on making changes to the ETS against the need to provide certainty for overseas markets carefully.
- 4.10 Cross-party support of changes would increase certainty going forward. There is an opportunity to build on bipartisan support of the the Climate Change Response (Zero Carbon) Amendment Act (2019) in this space. Continued commitment to outcomes here would both be a marked improvement on the current debate and allow for sped-up progress on achieving Aotearoa’s climate goals.

5. Funding emissions reductions

- 5.1 The draft advice recognises that realising the vision of an electrified economy could require an investment of over \$40 billion by 2030 across generation, transmission, and distribution infrastructure providers to address historical under-investment, meet future needs, and strengthen grid resilience. This is on top of an existing infrastructure deficit of more than \$210 billion, and alongside increased rebuild and resilience spending post Cyclone Gabrielle and Auckland Floods. The Government will not be able to address this alone and has recognised this in some sectors – like EV charging infrastructure where it has signalled an interest in partnering with the private sector. There is significant opportunity to expand this approach to fund and finance New Zealand’s climate mitigation and resilience needs.
- 5.2 INZ strongly supports the Commission’s recognition that meeting emissions reduction targets will depend on broadening, deepening, and accelerating current efforts in both the public and private financial sectors. This work, they note, includes ensuring adequate funding is present for initiatives to lower emissions, aligning all public investment with climate goals, developing a unifying strategy to support decision-making, and encouraging and enabling private investors to urgently shift to sustainable finance. This could take the form of an outcomes-focussed framework – where incentives are provided for low emission designs and construction (therefore covering both Capex and Opex emissions), allowing a problem solving rather than prescriptive approach that enables innovation, much like the Watercare model.
- 5.3 We also strongly support the Commission’s suggestion that a holistic and centralised Government investment strategy will help guide Aotearoa New Zealand’s transition and ensure a clear, consistent, joined up approach that will maximise impact, minimise delays,



and better enable individuals, businesses, agencies, and communities to play an active role. Currently, the Government's investment strategy is communicated across a range of plans and funds, without clear direction. It is encouraging to see the Commission highlight the need for clarity to attract private investment.

- 5.4 Our current funding system is failing to meet existing infrastructure needs, let alone future demand. There is a significant opportunity for innovative funding and financing arrangements and private sector capital to support emissions reduction work.
- 5.5 At present, local government does not benefit from economic growth in their regions but delivers half of New Zealand's infrastructure³. A large portion of the burden of infrastructure resilience, and emissions reduction through urban form improvements as proposed in the draft advice will fall to local councils to deliver.
- 5.6 The rating scheme fails to incentivise investment in infrastructure – particularly for important, but less visible, horizontal assets. Local governments' balance sheets are becoming increasingly stretched, and while one-off funding from central government is helpful in some areas, it is not a sustainable solution to councils' long-term revenue issues.
- 5.7 In Dunedin, for example, the city council faces significant climate resilience challenges in south Dunedin and has revised its debt limit upwards to account for the need to invest in these and other infrastructure pressures.
- 5.8 INZ supports greater buoyancy of taxation and city deal-style agreements between local and central government to provide funding for local governments to address the effects of climate change among infrastructure funding pressures. We encourage the Commission to take a system level view when considering funding arrangements for climate related spending.
- 5.9 We also recommend that the Commission's final advice focus in more depth on opportunities for greater investment in asset maintenance across the infrastructure network. While the draft advice touches on the importance of using existing assets more efficiently to reduce emissions and avoid built solutions where possible, a greater focus on sustained funding, and improvements to New Zealand's asset management practices, including the use of data, to would be a helpful supplement to this focus.

³ New Zealand Treasury, 2016, Ten Year Capital Intentions Plan 2016:
<https://www.treasury.govt.nz/sites/default/files/2017-12/2016-capital-intentions-plan.pdf>



- 5.10 There is also an opportunity to build on the draft advice’s acknowledgement of the need for adequate funding for Iwi to accelerate emissions reductions efforts.
- 5.11 The principle of long term kaitiakitanga in te ao Māori provides significant opportunity for Iwi to be involved in the funding and financing of assets. In its final advice the Commission should expand its strong focus on Māori interests and equity to also include options for Iwi led funding of sustainable infrastructure projects where there is an opportunity for returns.
- 5.12 There is substantial opportunity to build on positive steps already taken to engage private sector funding in this area.
- 5.13 For example, in Budget 2023, EV charging infrastructure received a \$120 million injection over four years. It was encouraging to see that the delivery of this will be in partnership with the private sector.
- 5.14 The Clean Car Sector Leadership Group, including the Sustainable Business Council, Drive Electric and Vector, has proposed to work with the Government to co-develop an implementation plan for the national EV Charging Strategy and establish a focused public-private mechanism to advance this.
- 5.15 A partnership approach between the Government and the private sector will enhance delivery capability, transfer key risks of deliverability to the private sector as well as the ability to deliver key parts of the strategy earlier than might be possible through a solely publicly funded and financed programme.
- 5.16 The funding followed closely behind consultation on the EV charging strategy – Charging Our Future. The model of clear funding and opportunities for the private sector to partner and deliver emissions reduction efforts is one that should be replicated more widely.
- 5.17 We recommend that opportunities to leverage private sector delivery capacity should be considered in more depth outside of electrification in the final advice.
- 5.18 In thinking about urban form and densification for low emissions cities, value capture tools and improved use of existing Infrastructure Funding and Financing tools including those under the IFF Act (2020) and the Urban Development Act (2020) could help speed up development of urban infrastructure.



- 5.19 We encourage the Commission, in its final advice, to widen the scope of its funding and financing focus to include infrastructure funding and financing tools that enable local governments to leverage private sector capital to create low emissions cities.

6. Transition and labour force considerations

- 6.1 INZ supports the draft advice's recognition of the need to provide financial and non-financial resources to small-medium sized businesses during the transition and encourages a focus on the construction sector in particular. Larger businesses are likely to have more capacity to adapt and change their behaviours as price incentives encourage them to do so. The New Zealand construction sector is made up of many small businesses, and a few larger firms. Managing the costs of the transition to a low emissions economy for smaller construction firms will be important to ensuring the sector can adapt to deliver on New Zealand's climate goals.
- 6.2 There is also a significant opportunity to shift resources, including skills, to renewables generation in the infrastructure industry. We suggest that the draft advice focus more closely on opportunities to support this shift.
- 6.3 Alongside labour-force profile changes in the mid-term, investment in digital infrastructure tools, and work to improve the regulatory and procurement environments to incentivise their use will be an important step in improving efficiencies of sustainable infrastructure projects, and to automate skills gaps where possible.
- 6.4 We recommend that the opportunities to progress Te Waihanga – the New Zealand Infrastructure Commission's recommendation to work towards developing a national digital twin and improving the use of other digital tools be explored in more depth in the Commission's final advice⁴.

7. Building for emissions reduction and climate resilient cities

⁴ New Zealand Infrastructure Commission. (2022). Rautaki Hanganga o Aotearoa 2022 - 2052 New Zealand Infrastructure Strategy: [rautaki-hanganga-o-aotearoa.pdf \(umbraco.io\)](https://www.umbraco.io)



- 7.1 The Intergovernmental Panel on Climate Change identifies that urban systems are critical to achieving deep emissions reductions. Key adaptation and mitigation elements in cities include considering climate change impacts and risks (e.g. through climate services) in the design and planning of settlements and infrastructure; land use planning to achieve compact urban form, co-location of jobs and housing; supporting public transport and active mobility (e.g., walking and cycling); the efficient design, construction, retrofit, and use of buildings; reducing and changing energy and material consumption⁵.
- 7.2 It is encouraging to see this focus reflected in the Commission’s draft advice through their recognition that many of the initial transport related emissions reduction opportunities come from avoiding long journey times in the first place.
- 7.3 Market signals that encourage densification will be an important ingredient in incentivising a shift in urban form. Delays and politicisation of major mass rapid transit projects are not beneficial to these outcomes.
- 7.4 As such, we support recommendation 10: implement an integrated planning system that builds urban areas upward and mixes uses while incrementally reducing climate risks. It is consistent with the direction of government policy through the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act, the Natural and Built Environment Bill, Spatial Planning Bill, and Climate Adaptation Bill. It also coincides with the National Policy Statement on Urban Development (NPS-UD) and the National Policy Statement on Highly Productive Land (NPS – HPL).
- 7.5 There is an opportunity for the Commission to provide more detail here, and to recommend further action to address the effects of any future roll back of the previously bi-partisan Medium Density Residential Standards.
- 7.6 The final advice should also consider the current consistency across the country to provide certainty for the construction and investment sectors about what assets are likely to be stranded, and where to build greater density. This will ensure the construction supply chain is invested in appropriately and able to provide in a cost-effective manner when needed.
- 7.7 INZ supports the intent of recommendation 11: incentivise comprehensive retrofits to deliver healthy, resilient, low emissions buildings, but echoes NZGBC’s points that there is room for more specific recommendations – particularly concerning funding and skills gaps in

⁵ Intergovernmental Panel on Climate Change. (2023). Synthesis Report Of The IPCC Sixth Assessment Report (Ar6): [IPCC_AR6_SYR_SPM.pdf](#)



this area.

- 7.8 We support the NZGBC’s suggestion that the recommendation is extended by the Commission to cover “supporting” and “incentivising” retrofit.
- 7.9 Further, the Council identifies that there are urgent funding gaps which must be addressed, including securing Government funding for low-carbon sources of heating and better resources for local authorities, and that skills gaps in housing design, construction and in the installation of new technologies must be addressed.
- 7.10 INZ is a strong proponent of using our infrastructure more effectively and efficiently. Improving residential housing stock carries significant co-benefits, and reduces pressures on both the grid through improved energy efficiency, and housing supply. We would like to see more specific recommendations in this area as above.
- 7.11 Additional to this, we recommend that the Commission’s final advice consider subsidies for green building and retrofit materials to send a clear signal to the market and incentivise a pipeline of sustainable infrastructure and retrofit projects.

8. Transport

- 8.1 The transport sector is expected to contribute significant emissions reductions in emissions budgets two and three. In the second budget period alone, the sector is expected to deliver reductions of 7-8 MtCO₂e.
- 8.2 Improving the speed of public transport delivery will be important to ensuring that urban form improvements are also met, and that we achieve mode shift for emissions reductions. Alongside this focus, continued electrification of private vehicles will be critical to ensuring that we can meet our climate goals.
- 8.3 An integrated mass rapid transit network will be important to enabling low emissions public transport options, and incentivising transit corridor densification. To deliver these benefits, there is a need to speed up the delivery of projects like Let’s Get Wellington Moving and Auckland Light Rail. These networks will need to be in place by 2035 to deliver required emissions reduction benefits.



- 8.4 High levels of politicisation and uncertainty for large projects like LGWM and ALR are causing delays which will make them more expensive to deliver, and create inefficiencies within the sector as well as forgone emissions reduction benefits.
- 8.5 A lack of clarity for developers along transport corridors will stifle urban form benefits, and lock in urban sprawl as investors look elsewhere.
- 8.6 As such, we support the Commission’s prioritisation of metro-based commuter mode shift and its proposed recommendation 16, including that the Government should take steps to complete rapid transport networks by 2035.
- 8.7 We note also that the draft advice underscores the importance of rapidly resolving the existing barriers to scaling up vehicle charging infrastructure and incentivising electric vehicle uptake to reach carbon reduction targets. The Commission notes that the main constraint on EV uptake during the second emissions budget period would be sufficient vehicle charging infrastructure – not access to low emissions vehicles.
- 8.8 New Zealanders use their vehicles for the vast majority of travel (82% of trips by travel time)⁶. While the Government is committed to shifting private travel to other modes, this is just one part of the equation. Major public transport infrastructure projects, for instance Auckland Light Rail are only anticipated to shift travel from private travel to public transport by 5% over the next 30 years⁷.
- 8.9 INZ strongly supports proposed recommendation 17 to rapidly resolve the barriers to scaling up vehicle charging infrastructure and further encourage the Commission to continue to emphasise the importance of public-private partnership in this space.
- 8.10 Further, we support the Commission’s acknowledgement that there needs to be greater clarity about what different local government entities are expected to deliver in order to support decarbonising transport. Central government needs to provide incentives and guidance to local government to decarbonise transport and increase investment in public transport infrastructure. Delays and politicisation of local government projects are not beneficial to decarbonisation.

⁶ Ministry of Transport. Household travel survey. <https://www.transport.govt.nz/statistics-and-insights/household-travel/>

⁷ Auckland Light Rail Indicative Business Case: Demand forecasting technical note. Available from: <https://www.lightrail.co.nz/media/zufnvmcf/appendix-010-transport-assessment-redacted.pdf>

- 8.11 Current funding arrangements for transport are not working. The National Land Transport Fund (NLTF) cannot meet our decarbonisation needs, and the review of its structure is not happening fast enough to ensure that New Zealand can reduce its transport emissions, and meet demand at pace. We recommend that the Commission consider transport funding, including opportunities to progress the review of the NLTF, in greater detail in its final advice.
- 8.12 There is an opportunity to implement transport pricing to attract private investment and support further investment. The Commission should also build on its discussion of transport funding in its final advice and consider alternative funding and financing models, including tolling, that have the potential to supplement the existing transport funding regime.

9. Enabling electrification

- 9.1 The draft advice identifies that gross electricity demand is projected to increase 28% by 2035 and 68% by 2050, compared to 2020.
- 9.2 The strong contribution expected from energy and industry in the second emissions budget period therefore reflects the need for rapid emissions cuts from electricity and heat production. This can be done by building new renewable generation and switching coal and fossil gas heating in industry and buildings to electricity and biomass.
- 9.3 To meet demand in a sustained manner, we must invest early to encourage manageable electrification, improve grid capacity and ensure resilience in electricity provision. This includes ensuring the costs associated with national grid connection upgrades remain commercially viable. Delays will lock in high-emissions infrastructure settings and create future hurdles to further emissions reduction.
- 9.4 Beca and the New Zealand Green Building Council identify that in a ‘delayed transition’ scenario, where policy, technology and behaviour changes remain slow up until 2030, the electricity grid will likely be unprepared for a spike in electrification during the 2030s, leading to a delay in adequate expansion of the grid, causing more frequent blackouts and electricity price fluctuations⁸. To avoid this future, early movement in this space will be crucial.

⁸ New Zealand Green Building Council. (2023). Climate Scenarios for the Construction and Property Sector: [Attachment \(nzghc.org.nz\)](https://nzbcc.org.nz/Attachment(nzghc.org.nz))



- 9.5 We currently face resilience issues in places like Napier where there is one line in and out. This lack of built in redundancy became clear following Cyclone Gabrielle when power was cut and unable to be quickly reinstated in the area.
- 9.6 Continued development of renewable energy infrastructure will play an important role in emissions reduction. Delivering the infrastructure required to meet emissions reduction targets through renewable energy is on track to be hampered by considerable consenting delays and the system's inability to meet increased demand in the coming years.
- 9.7 The draft advice rightly identifies that while there is work underway through the resource management reforms to improve consenting times for renewables, the long transition period and potential for carve outs to be included in implementation will hamper early investment and sustained uncertainty.
- 9.8 We would also add that the extensive list of outcomes in the Natural and Built Environment Bill lacks a clear hierarchy, and there is limited ability to make cost-benefit decisions regarding trade-offs between competing outcomes.
- 9.9 Te Waihanga – the New Zealand Infrastructure Commission and Sapere indicate that for New Zealand to meet its net zero by 2050 targets, the resource management reforms will need to be fully operational by 2028. From 2028 a 50 per cent reduction in projected consent processing times will be required. They underscore that any increase in delay beyond 2028, or ineffective reform, makes it highly unlikely that New Zealand will be able to consent the infrastructure needed to support its climate change aspirations⁹. This lack of guidance is, and will continue to, hamper effective implementation of climate change resource consent components at the local government level.
- 9.10 We support the draft advice's suggestion that transitional measures be put in place to support local government to take proactive climate mitigation and adaptation steps prior to reforms being implemented.
- 9.11 Further, we note that at present, around 40% of today's current renewable generation capacity will need to be re-consented during the second emissions budget period. The Commission estimates that if renewable generation build is six months behind the Commission's updated demonstration path, emissions would increase on average by 0.9 MtCO₂e and a 12-month delay would increase emissions by 1.8 MtCO₂e across the second

⁹ Moore et al. (2023). Infrastructure Consenting for Climate Targets: [Microsoft Word - INFRA Final Report - Jan 2023 \(tewaihanga.govt.nz\)](#).



emissions budget period. A delay of this magnitude is ill advised if we are to meet our climate goals.

9.12 INZ supports the Commission's view that to ensure a fast-paced and sustained build of renewable generation and network infrastructure, the Government could also provide clear direction and approaches for balancing and resolving conflicts between system outcomes. It would be particularly beneficial if the Government provided stronger directive language within existing policy instruments to remove barriers to building new renewable generation or consenting existing generation in the interim.

9.13 Longer consents allow financiers to finance the assets over the life of the asset and enable owners to take a long-term investment view. If there is uncertainty around consent duration, financiers and investors may have to assume a shorter asset life and investment may cease to be viable.

9.14 In considering renewable generation, we do however support Business New Zealand's view in their submission that efforts to eliminate the remaining 4% of fossil fuels from electricity generation poses significant challenges. We also submit that enabling or encouraging energy-intensive sites through policy tools to generate electricity locally will reduce peak loading on the national grid.

9.15 The Commission's pathway demonstration indicates that the electricity system is projected to reach 96% renewable by 2030. We agree with the Commission's assessment that achieving the ambitious goal of 100% renewable electricity generation by 2030 will likely require market intervention. Striking a balance between the costs associated with achieving complete fossil fuel phase-out and fostering an environment conducive to the wider adoption of low-carbon alternatives is of utmost importance.

9.16 We are therefore encouraged by the Commission's focus on energy security and the use of fuel for managing dry-year, hydro inflow drop-off and other climate related risks. We encourage the Commission to consider this in greater detail in its final advice.

10. Waste and F-Gases

10.1 While we are encouraged by the strong focus on waste emissions and a shift towards circular economy practices to meet the 2030 methane target in the draft advice, INZ submits that ensuring that emissions reduction approaches are fit for purpose will be critical to ensuring the success of emissions reductions in this space, as well as the continued



provision of this infrastructure service.

- 10.2 As such, we support Waste Management’s recommendation as canvassed in their submission to the Commission which details that waste-to-energy incineration is not considered a good solution for Aotearoa New Zealand due to the increased carbon associated with burning fossil fuel derived products¹⁰.
- 10.3 They explain that the concept of diverting organic waste from Class 1 landfills with good gas capture as detailed in the draft advice is overstated and is resulting in the perverse outcome of increasing Aotearoa New Zealand’s gross emissions.
- 10.4 They reflect on their experience that the production of embedded renewable energy from Class 1 landfills which they operate shows that waste to energy is an undervalued resource. At landfills with good gas capture, they explain, more than 95% of the methane produced is captured. Some landfills have a capability of exporting 25MW into the grid. This makes landfills, or waste to energy plants, a critical infrastructure asset to Aotearoa New Zealand at a time when energy needs are increasing and sustainable energy production is of paramount importance. Diverting organics from these landfills to more distant facilities, requiring greater energy consumption (from transport as well as processing) and higher embedded carbon in new infrastructure development, is contrary to the aims of the emissions reduction plan.
- 10.5 The Commission should therefore note that emissions from Class 1 landfills have halved since 2005 whereas unmanaged solid waste disposal sites have increased their emissions during the same period¹¹. The focus therefore needs to be on unmanaged landfills (which have no gas capture) and the transport to those facilities, not those managed Class 1 landfills which are already leading Aotearoa New Zealand in emissions reduction.
- 10.6 We encourage the Commission to consider shifting the focus from Class 1 landfills and to unmanaged landfills and transport services to those facilities, where there is greater opportunity for emissions reduction.

¹⁰ Waste Management submission on draft advice.

¹¹ 1990 – 2021 New Zealand’s Greenhouse Gas Inventory, Table 7.2.1 Landfill emissions in the common reporting format table: [New Zealand's Greenhouse Gas Inventory 1990–2021 | Ministry for the Environment](#)



11. Conclusion

- 11.1 As previously stated, INZ welcomes the Commission’s draft advice, and is encouraged by its thoroughness and acknowledgement of the need to act with urgency to address climate change.
- 11.2 It is clear that there is significant opportunity to partner with the private sector to meet Aotearoa’s emissions reduction goals by building on many of the funding and financing structures already in place. Certainty for investors and delivery organisations alike will be central to the success of these partnerships and projects.
- 11.3 Electric vehicle uptake, alongside commuter and freight mode shift will play an important role in the reduction of transport emissions. Charging infrastructure barriers will need to be removed, and the reliability of actions around this in the second ERP will be influential in the sector’s willingness and ability to deliver on the investment needed.
- 11.4 Supporting the grid to meet this demand, alongside climate resilience challenges, will be crucial. To do this, consenting timelines will need to be shortened and processes significantly improved.
- 11.5 We strongly encourage the incumbent Government to engage meaningfully with the Commission’s final advice and to support its role as an independent advisory body. The value of an apolitical and long-term infrastructure project pipeline is widely supported by the sector.
- 11.6 INZ looks forward to continuing to engage with the Commission and the Government as they work towards the publication of the second Emissions Reduction Plan.

Yours sincerely,

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Michelle McCormick

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Appendix One: Summary of Recommendations

#	Section	Recommendation
1	3.5	While outside of the scope of the draft advice, INZ recommends that the phasing of the review and provision of advice on the next ERP is reconsidered by Parliament.
2	3.6	There is also a role for increased influence of the Commission through Regulatory Impact Statement-like assessments of proposed climate policies, or cancelling of actions contained in previous ERPs.
3	3.12	Recommends that move to more strategic approach to draft advice is laid out in more detail in the final advice, and suggest that an increased policy analysis role for the Commission, as outlined in 3.6 may serve as a productive and more detail oriented addition to the Commission's strategic advice products.
4	3.13	Strongly encourage the incumbent Government at the next stage of advice consideration to engage meaningfully with the Commission's advice and to support its role as an independent advisory body.
5	4.4	Support the Commission's concern with the effects of a hyper-focus on afforestation and carbon sequestration. Afforestation brings with it risks for infrastructure assets in the context of increasingly common climate events like cyclones and flooding
6	4.9	Encourage the Commission to weigh its advice on making changes to the ETS against the need to provide certainty for overseas markets carefully.
7	5.2	Strongly support the Commission's recognition that meeting emissions reduction targets will depend on broadening, deepening, and accelerating current efforts in both the public and private financial sectors.
8	5.3	Strongly support the Commission's suggestion that a holistic and centralised Government investment strategy will help guide Aotearoa New Zealand's transition and ensure a clear, consistent, joined up approach that will maximise impact, minimise delays, and better enable individuals, businesses, agencies, and communities to play an active role.
9	5.8	Support greater buoyancy of rating/taxation and city deal-style agreements between local and central government to provide funding for local governments to address the effects of climate



		change among infrastructure funding pressures. We encourage the Commission to take a system level view when considering funding arrangements for climate related spending.
10	5.9	Recommend that the Commission’s final advice focus in more depth on opportunities for greater investment in asset maintenance across the infrastructure network. While the draft advice touches on the importance of using existing assets more efficiently to reduce emissions and avoid built solutions where possible, a greater focus on sustained funding, and improvements to New Zealand’s asset management practices, including the use of data, to would be a helpful supplement to this focus.
11	5.11	In its final advice the Commission should expand its strong focus on Māori interests and equity to also include options for Iwi led funding of sustainable infrastructure projects where there is an opportunity for returns.
12	5.17	Recommend that opportunities to leverage private sector delivery capacity should be considered in more depth outside of electrification in the final advice.
13	5.19	Encourage the Commission, in its final advice, to widen the scope of its funding and financing focus to include infrastructure funding and financing tools that enable local governments to leverage private sector capital to create low emissions cities.
14	6.1	Support the draft advice’s recognition of the need to provide financial and non-financial resources to small-medium sized businesses during the transition and encourages a focus on the construction sector in particular.
15	6.2	There is a significant opportunity to shift resources, including skills to renewables generation in the infrastructure industry. We suggest that the draft advice focus more closely on opportunities to support this shift.
16	6.4	Recommend that the opportunities to progress Te Waihanga – the New Zealand Infrastructure Commission’s recommendation to work towards developing a national digital twin and improving the use of



		other digital tools be explored in more depth in the Commission’s final advice ¹² .
17	7.4	Support recommendation 10: implement an integrated planning system that builds urban areas upward and mixes uses while incrementally reducing climate risks.
18	7.5	There is an opportunity for the Commission to provide more detail in recommendation 10, and to recommend further action to address the effects of any future roll back of the previously bi-partisan Medium Density Residential Standards.
19	7.6	The final advice should also consider the current consistency across the country to provide certainty for the construction and investment sectors about what assets are likely to be stranded, and where to build greater density.
20	7.7	support the intent of recommendation 11: Incentivise comprehensive retrofits to deliver healthy, resilient, low emissions buildings, but echoes NZGBC’s points that there is room for more specific recommendations – particularly concerning funding and skills gaps in this area.
21	7.8	Support the NZGBC’s suggestion that recommendation 11 is extended by the Commission to cover “supporting” and “incentivising” retrofit.
22	7.11	Recommend that the Commission’s final advice consider subsidies for green building and retrofit materials to send a clear signal to the market and incentivize a pipeline of sustainable infrastructure and retrofit projects.
23	8.6	Support the Commission’s prioritisation of metro-based commuter mode shift and its proposed recommendation 16, including that the Government should complete take steps to complete rapid transport networks by 2035.
24	8.9	Strongly support proposed recommendation 17 to rapidly resolve the barriers to scaling up vehicle charging infrastructure and further



		encourage the Commission to continue to emphasise the importance of public-private partnership in this space.
25	8.11	Recommend that the Commission consider transport funding, including opportunities to progress the review of the NLTF, in greater detail in its final advice.
26	8.12	The Commission should also build on its discussion of transport funding in its final advice and consider alternative funding and financing models, including tolling, that have the potential to supplement the existing transport funding regime.
27	9.10	Support the draft advice's suggestion that transitional measures be put in place to support local government to take proactive climate mitigation and adaptation steps prior to reforms being implemented.
28	9.12	Support the Commission's view that to ensure a fast-paced and sustained build of renewable generation and network infrastructure, the Government could also provide clear direction and approaches for balancing and resolving conflicts between system outcomes
29	10.2	Support Waste Management's recommendation as canvassed in their submission to the Commission which details that waste-to-energy incineration is not considered a good solution for Aotearoa New Zealand due to the increased carbon associated with burning fossil fuel derived products.